



SEQUENCE LISTING

<110> Watkins, Jeffry D.
Huse, William D.
Tang, Ying
Broek, Daniel
Brooks, Peter

<120> Humanized Collagen Antibodies and
Related Methods

<130> 66797-126 (P-IX 4976)

<140> US 09/995,529

<141> 2001-11-26

<160> 380

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<212> DNA

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<220>

<221> CDS

<222> (1) ... (339)

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Glu	Lys	Val	Thr	Met	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	Asn	Ser	
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gga	aat	caa	aag	aac	tac	ttg	gcc	tgg	tac	cag	cag	aaa	cca	ggg	cag	144
Gly	Asn	Gln	Lys	Asn	Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	
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cct	cct	aaa	ctg	ttg	atc	tat	ggg	gca	tcc	act	agg	gaa	tct	ggg	gtc	192
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Gly	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val	
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cct	gat	cgc	ttc	aca	ggc	agt	gga	tct	gga	acc	gat	ttc	act	ctt	atc	240
Pro	Asp	Arg	Phe	Thr	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Ile	
	65				70				75					80		

atc	agc	agt	gtg	cag	gct	gaa	gac	ctg	gca	gtt	tat	tac	tgt	cag	aat	288
Ile	Ser	Ser	Val	Gln	Ala	Glu	Asp	Leu	Ala	Val	Tyr	Tyr	Cys	Gln	Asn	

85										90					95					
gat	cat	agt	tat	ccg	tac	acg	ttc	gga	ggg	ggg	acc	aag	ctg	gaa	ata	336				
Asp	His	Ser	Tyr	Pro	Tyr	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile					
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Lys

<210> 2
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<213> Mus musculus

<400> 2															
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		20						25				30			
Gly	Asn	Gln	Lys	Asn	Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln
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Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Gly	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val
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Pro	Asp	Arg	Phe	Thr	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Ile
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Ile	Ser	Ser	Val	Gln	Ala	Glu	Asp	Leu	Ala	Val	Tyr	Tyr	Cys	Gln	Asn
			85						90					95	
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Lys

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<220>
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Glu	Val	Lys	Leu	Leu	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly	
1			5						10					15		
tcc	ctg	aaa	ctc	tcc	tgt	gca	gcc	tca	gga	ttc	gat	ttt	agt	aga	tac	96
Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Asp	Phe	Ser	Arg	Tyr	
			20					25					30			

tgg atg agt tgg gtc cgg cag gct cca ggg aaa ggg cta gaa tgg att	144
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile	
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gga gaa att aat cca gat agc agt acg ata aac tat acg cca tct cta	192
Gly Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ser Leu	
50 55 60	
aag gat aaa ttc atc atc tcc aga gac aac gcc aaa aat acg ctg tac	240
Lys Asp Lys Phe Ile Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr	
65 70 75 80	
ctg caa atg agc aaa gtg aga tct gag gac aca gcc ctt tat tac tgt	288
Leu Gln Met Ser Lys Val Arg Ser Glu Asp Thr Ala Leu Tyr Tyr Cys	
85 90 95	
gca aga ccg gtt gat ggt tac tac gat gct atg gac tac tgg ggt caa	336
Ala Arg Pro Val Asp Gly Tyr Tyr Asp Ala Met Asp Tyr Trp Gly Gln	
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 <213> Mus musculus

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Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Asp Phe Ser Arg Tyr
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Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ser Leu
50 55 60
Lys Asp Lys Phe Ile Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Ser Lys Val Arg Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
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100 105 110
Gly Thr Ser Val Thr Val Ser Ser
115 120

<210> 5
 <211> 305
 <212> DNA
 <213> Homo sapiens

<400> 5
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gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
cct cct aag ctg ctg att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctg acc 240
atc agc agc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
tat tat agt act cct cc 305

<210> 6
<211> 113
<212> PRT
<213> Homo sapiens

<400> 6
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1 5 10 15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95
Asp His Ser Tyr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110
Lys

<210> 7
<211> 294
<212> DNA
<213> Homo sapiens

<400> 7
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tgg atg agc tgg gtc cgc cag gct cca ggg aag ggg ctg gag tgg gtg 144
gcc aac ata aag caa gat gga agt gag aaa tac tat gtg gac tct gtg 192
aag ggc cga ttc acc atc tcc aga gac aac gcc aag aac tca ctg tat 240
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gcg aga 294

<210> 8
<211> 120
<212> PRT
<213> Homo sapiens

<400> 8

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Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr	
			20					25					30			
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	
			35				40					45				
Ala	Asn	Ile	Lys	Gln	Asp	Gly	Ser	Glu	Lys	Tyr	Tyr	Val	Asp	Ser	Val	
	50					55					60					
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr	
65					70				75						80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
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Ala	Arg	Pro	Asp	Tyr	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Val	Trp	Gly	Gln	
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<210> 9

<211> 336

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (1)...(336)

<400> 9

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gat	caa	gcc	tcc	atc	tct	tgc	aga	tct	agt	cag	agc	att	gta	cat	agt	96
Asp	Gln	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	
			20					25					30			
aat	gga	aac	acc	tat	tta	gaa	tgg	tac	ctg	cag	aaa	cca	ggc	cag	tct	144
Asn	Gly	Asn	Thr	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	
			35				40					45				
cca	aag	ctc	ctg	atc	tac	aaa	gtt	tcc	aac	cga	ttt	tct	ggc	gtc	cca	192
Pro	Lys	Leu	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro	
	50					55					60					
gac	agg	ttc	agt	ggc	agt	gga	tca	ggg	aca	gat	ttc	aca	ctc	aag	atc	240
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	
65					70				75						80	
agc	aga	gtg	gag	gct	gag	gat	ctg	gga	gtt	tat	tac	tgc	ttt	caa	ggc	288
Ser	Arg	Val	Glu	Ala	Glu	Asp	Leu	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly	
				85				90						95		

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 Ser His Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 10
 <211> 112
 <212> PRT
 <213> Mus musculus

<400> 10
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 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
 20 25 30
 Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
 85 90 95
 Ser His Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 11
 <211> 369
 <212> DNA
 <213> Mus musculus

<220>
 <221> CDS
 <222> (1)...(369)

<400> 11
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 1 5 10 15
 acc ctc agt ctg act tgt tct ttc tct ggg ttt tca ctg agc act tct 96
 Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30
 ggt atg ggt gta ggc tgg att cgt cag cct tca gga gag ggt cta gag 144
 Gly Met Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Glu Gly Leu Glu
 35 40 45
 tgg ctg gca gac att tgg tgg gat gac aat aag tac tat aac cca tcc 192
 Trp Leu Ala Asp Ile Trp Trp Asp Asp Asn Lys Tyr Tyr Asn Pro Ser
 50 55 60

ctg aag agc cgg ctc aca atc tcc aag gat acc tcc agc aac cag gta	240
Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val	
65 70 75 80	

ttc ctc aag atc acc agt gtg gac act gca gat act gcc act tac tac	288
Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr	
85 90 95	

tgt gct cga aga gct aac tat ggt aac ccc tac tat gct atg gac tac	336
Cys Ala Arg Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr	
100 105 110	

tgg ggt caa gga acc tca gtc acc gtc tcc tca	369
Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser	
115 120	

<210> 12
 <211> 123
 <212> PRT
 <213> Mus musculus

<400> 12															
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Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser															
20 25 30															
Gly Met Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Glu Gly Leu Glu															
35 40 45															
Trp Leu Ala Asp Ile Trp Trp Asp Asp Asn Lys Tyr Tyr Asn Pro Ser															
50 55 60															
Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val															
65 70 75 80															
Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr															
85 90 95															
Cys Ala Arg Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr															
100 105 110															
Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser															
115 120															

<210> 13
 <211> 305
 <212> DNA
 <213> Homo sapiens

<400> 13															
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gag ccg gcc tcc atc tcc tgc agg tct agt cag agc ctc ttg gat agt	96														
gat gat gga aac acc tat ttg gac tgg tac ctg cag aag cca ggg cag	144														
tct cca cag ctc ctg atc tat acg ctt tcc tat cgg gcc tct gga gtc	192														
cca gac agg ttc agt ggc agt ggg tca ggc act gat ttc aca ctg aaa	240														

atc agc agg gtg gag gct gag gat gtt gga gtt tat tac tgc atg caa 288
cgt ata gag ttt cct tc 305

<210> 14
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<212> PRT
<213> Homo sapiens

<400> 14
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20 25 30
Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
85 90 95
His Val Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 15
<211> 288
<212> DNA
<213> Homo sapiens

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acctgcacct tctctgggtt ctactcagc actagtggaa tgcgtgtgag ctggatccgt 120
cagccccccag ggaaggccct ggagtggctt gcacgcattg attggg atg atg ata 175
aat tct aca gca cat ctc tga agaccaggct caccatctcc aaggacacct 226
ccaaaaacca ggtggtcctt acaatgacca acatggaccc tgtggacaca gccacgtatt 286
ac 288

<210> 16
<211> 123
<212> PRT
<213> Homo sapiens

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Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30
Gly Met Arg Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45
Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Phe Tyr Ser Thr Ser
50 55 60
Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val

65		70		75		80									
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				85					90					95	
Cys	Ala	Arg	Arg	Ala	Asn	Tyr	Tyr	Tyr	Tyr	Tyr	Tyr	Ala	Met	Asp	Val
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Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser					
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<210> 17
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 <212> DNA
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<220>
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 <222> (1)...(339)

<400> 17																
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Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly	
1				5				10						15		
gag ccg gcc tcc atc tcc tgc agg tct agt cag agc ctc ttg gat agt															96	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	Asp	Ser	
			20					25						30		
gat gat gga aac acc tat ttg gac tgg tac ctg cag aag cca ggg cag															144	
Asp	Asp	Gly	Asn	Thr	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	
		35					40					45				
tct cca cag ctc ctg atc tat acg ctt tcc tat cgg gcc tct gga gtc															192	
Ser	Pro	Gln	Leu	Leu	Ile	Tyr	Thr	Leu	Ser	Tyr	Arg	Ala	Ser	Gly	Val	
		50				55					60					
cca gac agg ttc agt ggc agt ggg tca ggc act gat ttc aca ctg aaa															240	
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	
65					70				75					80		
atc agc agg gtg gag gct gag gat gtt gga gtt tat tac tgc atg caa															288	
Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	
				85				90						95		
cgg ttc aca tgt tcc gtg gac gtt cgg cca agg gac caa ggt gga aat															336	
Arg	Phe	Thr	Cys	Ser	Val	Asp	Val	Arg	Pro	Arg	Asp	Gln	Gly	Gly	Asn	
			100					105					110			
caa a															340	
Gln																

<210> 18

<211> 113
<212> PRT
<213> Homo sapiens

<400> 18
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
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Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
20 25 30
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
35 40 45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
50 55 60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65 70 75 80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
85 90 95
Arg Phe Thr Cys Ser Val Asp Val Arg Pro Arg Asp Gln Gly Gly Asn
100 105 110
Gln

<210> 19
<211> 51
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(51)

<400> 19
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Lys Ser Ser Gln Ser Leu Leu Asn Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15

gcc 51
Ala

<210> 20
<211> 17
<212> PRT
<213> Mus musculus

<400> 20
Lys Ser Ser Gln Ser Leu Leu Asn Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 21
<211> 21
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(21)

<400> 21
ggg gca tcc act agg gaa tct
Gly Ala Ser Thr Arg Glu Ser
1 5

21

<210> 22
<211> 7
<212> PRT
<213> Mus musculus

<400> 22
Gly Ala Ser Thr Arg Glu Ser
1 5

<210> 23
<211> 27
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(27)

<400> 23
cag aat gat cat agt tat ccg tac acg
Gln Asn Asp His Ser Tyr Pro Tyr Thr
1 5

27

<210> 24
<211> 9
<212> PRT
<213> Mus musculus

<400> 24
Gln Asn Asp His Ser Tyr Pro Tyr Thr
1 5

<210> 25
<211> 30

<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(30)

<400> 25
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Gly Phe Asp Phe Ser Arg Tyr Trp Met Ser
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<210> 26
<211> 10
<212> PRT
<213> Mus musculus

<400> 26
Gly Phe Asp Phe Ser Arg Tyr Trp Met Ser
1 5 10

<210> 27
<211> 51
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<220>
<221> CDS
<222> (1)...(51)

<400> 27
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Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ser Leu Lys
1 5 10 15

gat 51
Asp

<210> 28
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<212> PRT
<213> Mus musculus

<400> 28
Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ser Leu Lys
1 5 10 15
Asp

<210> 29
<211> 33
<212> DNA
<213> Mus musculus

<220>
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<222> (1)...(33)

<400> 29
ccg gtt gat ggt tac tac gat gct atg gac tac 33
Pro Val Asp Gly Tyr Tyr Asp Ala Met Asp Tyr
1 5 10

<210> 30
<211> 11
<212> PRT
<213> Mus musculus

<400> 30
Pro Val Asp Gly Tyr Tyr Asp Ala Met Asp Tyr
1 5 10

<210> 31
<211> 48
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)...(48)

<400> 31
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Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 32
<211> 16
<212> PRT
<213> Mus musculus

<400> 32
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 33

<211> 21
<212> DNA
<213> Mus musculus

<220>
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1 5

21

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<213> Mus musculus

<400> 34
Lys Val Ser Asn Arg Phe Ser
1 5

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<212> DNA
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<220>
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<400> 35
ttt caa ggt tca cat gtt ccg tgg acg
Phe Gln Gly Ser His Val Pro Trp Thr
1 5

27

<210> 36
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<212> PRT
<213> Mus musculus

<400> 36
Phe Gln Gly Ser His Val Pro Trp Thr
1 5

<210> 37
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<220>

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<222> (1)...(36)

<400> 37

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36

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<211> 12

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<213> Mus musculus

<400> 38

Gly Phe Ser Leu Ser Thr Ser Gly Met Gly Val Gly
1 5 10

<210> 39

<211> 48

<212> DNA

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<220>

<221> CDS

<222> (1)...(48)

<400> 39

gac att tgg tgg gat gac aat aag tac tat aac cca tcc ctg aag agc 48
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<211> 16

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<213> Mus musculus

<400> 40

Asp Ile Trp Trp Asp Asp Asn Lys Tyr Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 41

<211> 39

<212> DNA

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<220>

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<222> (1)...(39)

<400> 41

aga gct aac tat ggt aac ccc tac tat gct atg gac tac
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39

<210> 42

<211> 13

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<213> Mus musculus

<400> 42

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
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<210> 43

<211> 10

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<220>

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<400> 43

Gly Phe Asp Phe Ser His Tyr Trp Met Ser
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<210> 44

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Gly Phe Asp Phe Ser Arg Tyr Trp Ile Ser
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Gly Phe Asp Phe Ser Arg Tyr Trp Met Ala
1 5 10

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<400> 47
Gly Phe Asp Phe Ser Arg Tyr Trp Met Gly
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<210> 48
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Asp

<210> 49
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<400> 49

Glu Ile Asn Pro Asp Ser Ser Thr Ser Asn Tyr Thr Pro Ser Leu Asp
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Lys

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<400> 50

Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Tyr Leu Lys
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<400> 51

Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ala Leu Lys
1 5 10 15
Asp

<210> 52

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<400> 52

Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro His Leu Lys
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Asp

<210> 53
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<400> 53
Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Gly Leu Lys
1 5 10 15
Asp

<210> 54
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Glu Ile Asn Pro Asp Ser Ser Thr Ile Asn Tyr Thr Pro Ser Leu Gln
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Asp

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Pro Val Pro Gly Tyr Tyr Asp Ala Met Asp Tyr
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<400> 57
Pro Val Gly Gly Tyr Tyr Asp Ala Met Asp Tyr
1 5 10

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<400> 58
Pro Val Thr Gly Tyr Tyr Asp Ala Met Asp Tyr
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<400> 59
Pro Val Ala Gly Tyr Tyr Asp Ala Met Asp Tyr
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<400> 60

Pro Val Asp Pro Tyr Tyr Asp Ala Met Asp Tyr
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Pro Val Asp Ala Tyr Tyr Asp Ala Met Asp Tyr
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<400> 62
Pro Val Asp His Tyr Tyr Asp Ala Met Asp Tyr
1 5 10

<210> 63
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<400> 63
Pro Val Asp Gly Tyr Tyr Asp Ala Met Asp Pro
1 5 10

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<400> 64
Pro Val Asp Gly Tyr Tyr Asp Ala Met Asp Asn

1 5 10

<210> 65
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Lys Ser Ser Arg Ser Leu Leu Asn Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 66
<211> 17
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<400> 66
Lys Ser Ser Ser Ser Leu Leu Asn Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 67
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<400> 67
Lys Ser Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 68
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<220>

<223> synthetic antibody mutation

<400> 68

Lys Ser Ser Gln Ser Leu Leu Asn Tyr Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 69

<211> 17

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<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 69

Lys Ser Ser Gln Ser Leu Leu Asn Trp Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 70

<211> 17

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<400> 70

Lys Ser Ser Gln Ser Leu Leu Asn His Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 71

<211> 17

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<400> 71

Lys Ser Ser Gln Ser Leu Leu Asn Arg Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

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<400> 72
Lys Ser Ser Gln Ser Leu Leu Asn Ser Tyr Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

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<211> 17
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<400> 73
Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 74
<211> 17
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<400> 74
Lys Ser Ser Gln Ser Leu Leu Asn Ser His Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 75
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<220>

<223> synthetic antibody mutation

<400> 75

Lys Ser Ser Gln Ser Leu Leu Asn Ser Ile Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 76

<211> 17

<212> PRT

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<220>

<223> synthetic antibody mutation

<400> 76

Lys Ser Ser Gln Ser Leu Leu Asn Ser Gly Asn Lys Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 77

<211> 9

<212> PRT

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<223> synthetic antibody mutation

<400> 77

Gln Asn Asp His Gln Tyr Pro Tyr Thr
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<210> 78

<211> 9

<212> PRT

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<220>

<223> synthetic antibody mutation

<400> 78

Gln Asn Asp His Gly Tyr Pro Tyr Thr
1 5

<210> 79

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 79

Gln Asn Asp His Leu Tyr Pro Tyr Thr
1 5

<210> 80

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 80

Gln Asn Asp His Ala Tyr Pro Tyr Thr
1 5

<210> 81

<211> 9

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<220>

<223> synthetic antibody mutation

<400> 81

Gln Asn Asp His Thr Tyr Pro Tyr Thr
1 5

<210> 82

<211> 9

<212> PRT

<213> Artificial Sequence

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<223> synthetic antibody mutation

<400> 82

Gln Asn Asp His Val Tyr Pro Tyr Thr
1 5

<210> 83

<211> 9

<212> PRT

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<223> synthetic antibody mutation

<400> 83

Gln Asn Asp His Ser Asn Pro Tyr Thr

1

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<400> 84

Gln Asn Asp His Ser Ser Pro Tyr Thr

1

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<210> 85

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Gln Asn Asp His Ser Pro Pro Tyr Thr

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Gln Asn Asp His Ser Met Pro Tyr Thr

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5

<210> 87

<211> 12

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<223> synthetic antibody mutation

<400> 87

Gly Phe Ser Leu Ser Thr Pro Gly Met Gly Val Gly
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<210> 88

<211> 12

<212> PRT

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<223> synthetic antibody mutation

<400> 88

Gly Phe Ser Leu Ser Thr Trp Gly Met Gly Val Gly
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<210> 89

<211> 12

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<223> synthetic antibody mutation

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Gly Phe Ser Leu Ser Thr Ser Gly Met Gly Val Trp
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<211> 12

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<223> synthetic antibody mutation

<400> 90

Gly Phe Ser Leu Ser Thr Ser Gly Met Gly Val Leu
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<210> 91

<211> 12

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<223> synthetic antibody mutation

<400> 91

Gly Phe Ser Leu Ser Thr Ser Gly Met Gly Val Ala
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<211> 16

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<223> synthetic antibody mutation

<400> 92

Asp Ile Trp Trp Asp Asp Asn Lys Tyr Ser Asn Pro Ser Leu Lys Ser
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<223> synthetic antibody mutation

<400> 93

Asp Ile Trp Trp Asp Asp Asn Lys Tyr Ala Asn Pro Ser Leu Lys Ser
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<223> synthetic antibody mutation

<400> 94

Asp Ile Trp Trp Asp Asp Asn Lys Tyr Pro Asn Pro Ser Leu Lys Ser
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<400> 95

Asp Ile Trp Trp Asp Asp Asn Lys Tyr Tyr Asn Pro Ser Leu Pro Ser
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<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

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Pro Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
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<210> 97

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 97

Gln Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 98

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 98

Leu Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 99

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 99

Thr Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 100

<211> 13

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<213> Artificial Sequence

<220>

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<400> 100

Val Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Tyr
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<210> 101

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 101

Arg Ala Asn Tyr Gly Val Pro Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 102

<211> 13

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<213> Artificial Sequence

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<223> synthetic antibody mutation

<400> 102

Arg Ala Asn Tyr Gly Trp Pro Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 103

<211> 13

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<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 103

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Gln Asp Tyr
1 5 10

<210> 104

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<213> Artificial Sequence

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<223> synthetic antibody mutation

<400> 104

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Asn Asp Tyr
1 5 10

<210> 105

<211> 13

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<223> synthetic antibody mutation

<400> 105

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Thr Asp Tyr
1 5 10

<210> 106

<211> 13

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<223> synthetic antibody mutation

<400> 106

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Lys
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<210> 107

<211> 13

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<400> 107

Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Thr

1 5 10

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<400> 108
Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp Met
1 5 10

<210> 109
<211> 13
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<400> 109
Arg Ala Asn Tyr Gly Asn Pro Tyr Tyr Ala Met Asp His
1 5 10

<210> 110
<211> 16
<212> PRT
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<220>
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<400> 110
Arg Ser Ser Gln Ser Ile Pro His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 111
<211> 16
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<400> 111
Arg Ser Ser Gln Ser Ile Trp His Ser Asn Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 112

<211> 16

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<220>

<223> synthetic antibody mutation

<400> 112

Arg	Ser	Ser	Gln	Ser	Ile	Val	Leu	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
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<210> 113

<211> 16

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<220>

<223> synthetic antibody mutation

<400> 113

Arg	Ser	Ser	Gln	Ser	Ile	Val	Ser	Ser	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 114

<211> 16

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<400> 114

Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Trp	Asn	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 115

<211> 16

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<400> 115

Arg	Ser	Ser	Gln	Ser	Ile	Val	His	Ser	Tyr	Gly	Asn	Thr	Tyr	Leu	Glu
1				5					10					15	

<210> 116
<211> 16
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Arg Ser Ser Gln Ser Ile Val His Ser Trp Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 117
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<400> 117
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Tyr Thr Tyr Leu Glu
1 5 10 15

<210> 118
<211> 16
<212> PRT
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<220>
<223> synthetic antibody mutation

<400> 118
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Phe Glu
1 5 10 15

<210> 119
<211> 16
<212> PRT
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<400> 119
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Val Glu
1 5 10 15

<210> 120
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<400> 120
Ser Val Ser Asn Arg Phe Ser
1 5

<210> 121
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<400> 121
Lys Ala Ser Asn Arg Phe Ser
1 5

<210> 122
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1 5

<210> 123
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1 5

<210> 124

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<210> 126
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1 5

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Phe Arg Gly Ser His Val Pro Trp Thr
1 5

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Phe Trp Gly Ser His Val Pro Trp Thr
1 5

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Phe Gln Ser Ser His Val Pro Trp Thr
1 5

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Phe Gln Gly Trp His Val Pro Trp Thr
1 5

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1

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<400> 136

Phe Gln Gly Ser Ala Val Pro Trp Thr
1 5

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Phe Gln Gly Ser Gln Val Pro Trp Thr
1 5

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Phe Gln Gly Ser His Thr Pro Trp Thr
1 5

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Phe Gln Gly Ser His Val Pro Trp Ala
1 5

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Phe Gln Gly Ser His Val Pro Trp Lys

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5

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<400> 144

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<211> 9

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<400> 145

Phe Gln Gly Ser His Phe Pro Trp Thr
1 5

<210> 146

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<400> 146

Arg Ser Ser Gln Ser Ile Val His Ser Gln Gly Asn Thr Tyr Leu Glu
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<210> 147

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<223> synthetic antibody mutation

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Gly Phe Ser Leu Ser Thr Pro Gly Met Gly Val Trp
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<400> 148

Gly Phe Ser Leu Ser Thr Pro Gly Met Gly Val Ala
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<211> 16

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<400> 149

Arg Ser Ser Gln Ser Ile Val Ser Ser Trp Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 150

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Arg Ser Ser Gln Ser Ile Val Ser Ser Tyr Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 151

<211> 16

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<400> 151

Arg Ser Ser Gln Ser Ile Val Ser Ser Gln Gly Asn Thr Tyr Leu Glu
1 5 10 15

<210> 152

<211> 16

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<213> Artificial Sequence

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<223> synthetic antibody mutation

<400> 152

Arg Ser Ser Gln Ser Ile Val His Ser Gln Gly Asn Thr Tyr Phe Glu
1 5 10 15

<210> 153
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<400> 153
Arg Ser Ser Gln Ser Ile Val Ser Ser Trp Gly Asn Thr Tyr Phe Glu
1 5 10 15

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<211> 17
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<400> 154
Glu Ile Asn Pro Asp Ser Ser Thr Ala Asn Tyr Thr Pro Ala Leu Lys
1 5 10 15
Asp

<210> 155
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 155
Glu Ile Asn Pro Asp Ser Ser Thr Ala Asn Tyr Thr Pro Tyr Leu Lys
1 5 10 15
Asp

<210> 156
<211> 17
<212> PRT
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<400> 156
Glu Ile Asn Pro Asp Ser Ser Thr Ala Asn Tyr Thr Pro His Leu Lys

1	5	10	15
Asp			

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<400> 157
Lys Ser Ser Gln Ser Leu Leu Asn Trp Tyr Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 158
<211> 17
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<220>
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<400> 158
Lys Ser Ser Gln Ser Leu Leu Asn Tyr Tyr Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

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<400> 159
Lys Ser Ser Gln Ser Leu Leu Asn Tyr His Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

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<400> 160

Lys Ser Ser Gln Ser Leu Leu Asn Arg Tyr Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 161

<211> 17

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<220>

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<400> 161

Lys Ser Ser Gln Ser Leu Leu Asn Trp His Asn Gln Lys Asn Tyr Leu
1 5 10 15
Ala

<210> 162

<211> 17

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<220>

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<400> 162

Glu Ile Asn Pro Asp Ser Ser Thr Val Asn Tyr Thr Pro Ser Leu Lys
1 5 10 15
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<211> 39

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ggatt 65

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ggatt 65

<210> 168
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<210> 177

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<400> 187

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tcagtaactg caggtgtcca 20

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<400> 203

ttttaaaagg tgtccagtgt 20

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gcaacagcta caggtgtcca 20

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gacatttggg aaggactgac tctc 24

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cagggggctc tcgcaggaga cgag 24

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<400> 216

ttggtgctga tgttctggat tcctgcttcc agcagt 36

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<211> 38

<212> DNA

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<223> Primer

<400> 217

gtggacgttc ggccaaggga ccaaggtgga aatcaaac 38

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<212> DNA

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<223> Primer

<400> 218

tgtacacttt tggccagggg accaagctgg agatcaaac 39

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<212> DNA

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<223> Primer

<400> 219

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gacagatggt gcagccacag t 21

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<400> 222
ttactgttta cccctgtgac aaaagcc 27

<210> 223
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<400> 223
gaagaccgat gggcccttgg t 21

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cacatc 66

<210> 225
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<221> misc_feature

<222> 41, 42

<223> n = A,T,C or G

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<210> 226

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<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

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<210> 227

<211> 66

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<221> misc_feature

<222> 35, 36

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<210> 228

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

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cacatc 66

<210> 229

<211> 66

<212> DNA

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<221> misc_feature

<222> 29, 30

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<210> 230

<211> 66

<212> DNA

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<221> misc_feature

<222> 26, 27

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<210> 231

<211> 66

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<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

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66

<210> 232

<211> 66

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<222> 20, 21

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<212> DNA

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gtaatacac 69

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<210> 238

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gtaatacac 69

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gtaatacac 69

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<400> 241

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gtaatacac 69

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gtaatacac 69

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gtaatacac 69

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<210> 245
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aacatc 66

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aacatc 66

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<221> misc_feature
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aacatc 66

<210> 248
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aacatc 66

<210> 249
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aacatc 66

<210> 250
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<221> misc_feature
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<223> n = A,T,C or G

<400> 250
cttggtgccc tggccgaacg tccamnaac atgtgaacct tgaaagcagt aataaactcc 60
aacatc 66

<210> 251
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 251
cttggtgccc tggccgaacg tmnncggaac atgtgaacct tgaaagcagt aataaactcc 60
aacatc 66

<210> 252
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 252
cttggtgccc tggccgaamn nccacggaac atgtgaacct tgaaagcagt aataaactcc 60
aacatc 66

<210> 253
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 56, 57
<223> n = A,T,C or G

<400> 253
cgtgggttcct tgccccagc agtccatagc atagtagggg ttaccatagt tagcmnttcg 60
agcacagtaa tacgt 75

<210> 254
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 53, 54
<223> n = A,T,C or G

<400> 254
cgtgggttcct tgccccagc agtccatagc atagtagggg ttaccatagt tmnntcttcg 60
agcacagtaa tacgt 75

<210> 255

<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 50, 51
<223> n = A,T,C or G

<400> 255
cgtgggttcct tgccccccagt agtccatagc atagtagggg ttaccatamn nagctcttcg 60
agcacagtaa tacgt 75

<210> 256
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 47, 48
<223> n = A,T,C or G

<400> 256
cgtgggttcct tgccccccagt agtccatagc atagtagggg ttaccmnngt tagctcttcg 60
agcacagtaa tacgt 75

<210> 257
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 44, 45
<223> n = A,T,C or G

<400> 257
cgtgggttcct tgccccccagt agtccatagc atagtagggg ttmnnatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 258
<211> 75
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 41, 42

<223> n = A,T,C or G

<400> 258

cgtgggttcct tgccccagc agtccatagc atagtagggm nnaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 259

<211> 75

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

<400> 259

cgtgggttcct tgccccagc agtccatagc atagtamngg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 260

<211> 75

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 260

cgtgggttcct tgccccagc agtccatagc atamngggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 261

<211> 75

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 261
cgtgggttcct tgccccagc agtccatagc mnngtagggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 262
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 29, 30
<223> n = A,T,C or G

<400> 262
cgtgggttcct tgccccagc agtccatmnn atagtagggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 263
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 26, 27
<223> n = A,T,C or G

<400> 263
cgtgggttcct tgccccagc agtcmnnagc atagtagggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 264
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 264
cgtgggttcct tgccccagc amnncatagc atagtagggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 265
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 265
cgtggttcct tgccccamn ngccatagc atagtagggg ttaccatagt tagctcttcg 60
agcacagtaa tacgt 75

<210> 266
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 41, 42
<223> n = A,T,C or G

<400> 266
gttcttttgg tttccgcwgt ttaacagact ctggctggam nngcagttga tggtaggcct 60

<210> 267
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 267
gttcttttgg tttccgcwgt ttaacagact ctggctmnc ttgcagttga tggtaggcct 60

<210> 268
<211> 60
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 268

gttcttttgg tttccgcwgt ttaacagact ctgmnnnggac ttgcagttga tggtaggcct 60

<210> 269

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 269

gttcttttgg tttccgcwgt ttaacagact mnngctggac ttgcagttga tggtaggcct 60

<210> 270

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 270

gttcttttgg tttccgcwgt ttaacagmnn ctggctggac ttgcagttga tggtaggcct 60

<210> 271

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 271

gttctttttgg tttccgcwgt ttaamnact ctggctggac ttgcagttga tggtaggcct 60

<210> 272

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 272

gttctttttgg tttccgcwgt tmncagact ctggctggac ttgcagttga tggtaggcct 60

<210> 273

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 273

gttctttttgg tttccgcwmn ntaacagact ctggctggac ttgcagttga tggtaggcct 60

<210> 274

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 44, 45

<223> n = A,T,C or G

<400> 274

tgggtttctgc tggtagcaag ctaagtagtt cttttggttt ccmngttta acagactctg 60
gct 63

<210> 275
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 41, 42
<223> n = A,T,C or G

<400> 275
tggtttctgc tggtagcaag ctaagtagtt cttttggttm nngcwggtta acagactctg 60
gct 63

<210> 276
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 276
tggtttctgc tggtagcaag ctaagtagtt cttttgmntt ccgwggtta acagactctg 60
gct 63

<210> 277
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 35, 36
<223> n = A,T,C or G

<400> 277
tggtttctgc tggtagcaag ctaagtagtt cttmngttt ccgwggtta acagactctg 60
gct 63

<210> 278
<211> 63
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 278

tggtttctgc tggtagcaag ctaagtagtt mnnttggttt ccgcwgttta acagactctg 60
gct 63

<210> 279

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 279

tggtttctgc tggtagcaag ctaagtamnn cttttggttt ccgcwgttta acagactctg 60
gct 63

<210> 280

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 280

tggtttctgc tggtagcaag ctaamngtt cttttggttt ccgcwgttta acagactctg 60
gct 63

<210> 281

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 281

tggtttctgc tggtaccaag cmnngtagtt cttttggttt ccgcwgttta acagactctg 60
gct 63

<210> 282

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 282

tggtttctgc tggtaccamn ntaagtagtt cttttggttt ccgcwgttta acagactctg 60
gct 63

<210> 283

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

<400> 283

gaatcgggtca gggacccccg attccctggt agatgcmnng taaatgagca gcttagg 57

<210> 284

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 284

gaatcgggtca gggacccccg attccctggt agamnccccg taaatgagca gcttagg 57

<210> 285
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 32, 33
<223> n = A,T,C or G

<400> 285
gaatcgggtca gggacccccgg attccctggg mntgccccg taaatgagca gcttagg 57

<210> 286
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 29, 30
<223> n = A,T,C or G

<400> 286
gaatcgggtca gggacccccgg attccctmnn agatgccccg taaatgagca gcttagg 57

<210> 287
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 26, 27
<223> n = A,T,C or G

<400> 287
gaatcgggtca gggacccccgg attcmnnggt agatgccccg taaatgagca gcttagg 57

• <210> 288
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 288
gaatcggtca gggaccccg amnncctggt agatgccccg taaatgagca gcttagg 57

<210> 289
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 289
gaatcggtca gggaccccmn nttccctggt agatgccccg taaatgagca gcttagg 57

<210> 290
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 32, 33
<223> n = A,T,C or G

<400> 290
tggagcctgg cggaccagc tcatccaata mnactaaag gtgaatccag a 51

<210> 291
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 29, 30
<223> n = A,T,C or G

<400> 291
tggagcctgg cggaccagc tcatccamnn tctactaaag gtgaatccag a 51

<210> 292

<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 26, 27
<223> n = A,T,C or G

<400> 292
tggagcctgg cggacccagc tcatmnata tctactaaag gtgaatccag a 51

<210> 293
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 293
tggagcctgg cggacccagc tmnnccaata tctactaaag gtgaatccag a 51

<210> 294
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 294
tggagcctgg cggacccamn ncatccaata tctactaaag gtgaatccag a 51

<210> 295
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature

<222> 44, 45

<223> n = A,T,C or G

<400> 295

tagagatggc gtatagttta tcgtactgct atctggattt atmngccaa yccactccag 60
ccctttc 67

<210> 296

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 41, 42

<223> n = A,T,C or G

<400> 296

tagagatggc gtatagttta tcgtactgct atctggattm nnttcgccaa yccactccag 60
ccctttc 67

<210> 297

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

<400> 297

tagagatggc gtatagttta tcgtactgct atctggmnnt atttcgccaa yccactccag 60
ccctttc 67

<210> 298

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 298

tagagatggc gtatagttta tcgtactgct atcmnnattt atttcgccaa yccactccag 60

ccctttc

67

<210> 299

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 299

tagagatggc gtatagttta tcgtactgct mnntggattt atttcgcaa yccactccag 60
ccctttc 67

<210> 300

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 300

tagagatggc gtatagttta tcgtactmn atctggattt atttcgcaa yccactccag 60
ccctttc 67

<210> 301

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 301

tagagatggc gtatagttta tcgtmngct atctggattt atttcgcaa yccactccag 60
ccctttc 67

<210> 302

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 302

tagagatggc gtatagttta tmnactgct atctggattt atttcgcaa yccactccag 60
ccctttc 67

<210> 303

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 303

tagagatggc gtatagttmn ncgtactgct atctggattt atttcgcaa yccactccag 60
ccctttc 67

<210> 304

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 48, 49

<223> n = A,T,C or G

<400> 304

cgttgctctt ggagatgrtg aatytatcct ttagagatgg cgtatamnt atcgtactgc 60
tatctgg 67

<210> 305

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature
<222> 45, 46
<223> n = A,T,C or G

<400> 305
cgttgtctct ggagatgrtg aatytatcct ttagagatgg cgtmngttt atcgactgc 60
tatctgg 67

<210> 306
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 42, 43
<223> n = A,T,C or G

<400> 306
cgttgtctct ggagatgrtg aatytatcct ttagagatgg mnatagttt atcgactgc 60
tatctgg 67

<210> 307
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 39, 40
<223> n = A,T,C or G

<400> 307
cgttgtctct ggagatgrtg aatytatcct ttagagamnn cgtatagttt atcgactgc 60
tatctgg 67

<210> 308
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 36, 37
<223> n = A,T,C or G

<400> 308

cgttgtctct ggagatgrtg aatytatcct ttagmⁿntgg cgtatagttt atcg^ttactgc 60
tatctgg 67

<210> 309
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc^{_}feature
<222> 33, 34
<223> n = A,T,C or G

<400> 309
cgttgtctct ggagatgrtg aatytatcct tmⁿnagatgg cgtatagttt atcg^ttactgc 60
tatctgg 67

<210> 310
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc^{_}feature
<222> 30, 31
<223> n = A,T,C or G

<400> 310
cgttgtctct ggagatgrtg aatytatc^mn ntagagatgg cgtatagttt atcg^ttactgc 60
tatctgg 67

<210> 311
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc^{_}feature
<222> 27, 28
<223> n = A,T,C or G

<400> 311
cgttgtctct ggagatgrtg aatyt^mnnct ttagagatgg cgtatagttt atcg^ttactgc 60
tatctgg 67

<210> 312
<211> 58

<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 41, 42
<223> n = A,T,C or G

<400> 312
ataggtgttt ccattactat gtacaatgct ctgactagam nngcaggaga tggaggcc 58

<210> 313
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 313
ataggtgttt ccattactat gtacaatgct ctgactmnnc ctgcaggaga tggaggcc 58

<210> 314
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> 35, 36
<223> n = A,T,C or G

<400> 314
ataggtgttt ccattactat gtacaatgct ctgmnagac ctgcaggaga tggaggcc 58

<210> 315
<211> 58
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 32, 33

<223> n = A,T,C or G

<400> 315

ataggtgttt ccattactat gtacaatgct mnactagac ctgcaggaga tggaggcc 58

<210> 316

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 316

ataggtgttt ccattactat gtacaatmn ctgactagac ctgcaggaga tggaggcc 58

<210> 317

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 317

ataggtgttt ccattactat gtacmnngct ctgactagac ctgcaggaga tggaggcc 58

<210> 318

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 318

ataggtgttt ccattactat gmnaatgct ctgactagac ctgcaggaga tggaggcc 58

<210> 319

<211> 58

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 319

ataggtgttt ccattactmn ntacaatgct ctgactagac ctgcaggaga tggaggcc 58

<210> 320

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 41, 42

<223> n = A,T,C or G

<400> 320

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<210> 321

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

<400> 321

tggtttctgc aggtaccatt ccaaataagggt gtttccmna ctatgtacaa tgctctgact 60

<210> 322

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 322

tggtctctgc aggtaccatt ccaaataagggt gttmnatta ctatgtacaa tgctctgact 60

<210> 323

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 323

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<210> 324

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 324

tggtctctgc aggtaccatt ccaaataamnn gttccatta ctatgtacaa tgctctgact 60

<210> 325

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 325

tggtctctgc aggtaccatt ccaamnnnggt gttccatta ctatgtacaa tgctctgact 60

<210> 326
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 326
tggcttctgc aggtaccatt cmnntaggt gtttcatta ctatgtacaa tgctctgact 60

<210> 327
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 327
tggcttctgc aggtaccam ncaaataagg gtttcatta ctatgtacaa tgctctgact 60

<210> 328
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 328
gaacctgtct gggactccag aaaaccggtt ggaaacmna tagatcagga gctgtgg 57

<210> 329
<211> 57
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 329

gaacctgtct gggactccag aaaaccggtt ggamnnttta tagatcagga gctgtgg 57

<210> 330

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 330

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<210> 331

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 331

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<210> 332

<211> 57

<212> DNA

<213> Artificial Sequence

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<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 332
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<210> 333
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> 23, 24
<223> n = A,T,C or G

<400> 333
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<210> 334
<211> 57
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<220>
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<221> misc_feature
<222> 20, 21
<223> n = A,T,C or G

<400> 334
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<210> 335
<211> 57
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<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 335
tgggggctga cggatccagc ccacacccat tccagamng ctgagtgaga acccaga 57

<210> 336
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 35, 36
<223> n = A,T,C or G

<400> 336
tgggggctga cggatccagc ccacacccat tccmnagtg ctgagtgaga acccaga 57

<210> 337
<211> 57
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<220>
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<221> misc_feature
<222> 32, 33
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<400> 337
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<210> 338
<211> 57
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<220>
<223> primer

<221> misc_feature
<222> 29, 30
<223> n = A,T,C or G

<400> 338
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<210> 339
<211> 57
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<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 26, 27
<223> n = A,T,C or G

<400> 339

tgggggctga cggatccagc ccacmncat tccagaagtg ctgagtgaga acccaga 57

<210> 340

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 340

tgggggctga cggatccagc cmnnacccat tccagaagtg ctgagtgaga acccaga 57

<210> 341

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 341

tgggggctga cggatccamn ncacacccat tccagaagtg ctgagtgaga acccaga 57

<210> 342

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 41, 42

<223> n = A,T,C or G

<400> 342

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<210> 343

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 38, 39

<223> n = A,T,C or G

<400> 343

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<210> 344

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 35, 36

<223> n = A,T,C or G

<400> 344

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<210> 345

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 345

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<210> 346

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 346

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<210> 347

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 347

cagagatggg ttgtagtatt tattmnnatc ccaccaaag tctgcaagcc actccagggc 60

<210> 348

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 348

cagagatggg ttgtagtatt tmngtcac ccaccaaag tctgcaagcc actccagggc 60

<210> 349

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 349

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<210> 350
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 41, 42
<223> n = A,T,C or G

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<210> 351
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> 38, 39
<223> n = A,T,C or G

<400> 351
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<210> 352
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> 35, 36
<223> n = A,T,C or G

<400> 352
cttggagatg gtgagcctgc tcttcagaga tggmngtag tattttattgt catcccacca 60

<210> 353
<211> 60
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 32, 33

<223> n = A,T,C or G

<400> 353

cttggagatg gtagcctgc tcttcagaga mnngttgtag tatttattgt catcccacca 60

<210> 354

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 29, 30

<223> n = A,T,C or G

<400> 354

cttggagatg gtagcctgc tcttcagmnn tgggttgtag tatttattgt catcccacca 60

<210> 355

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 26, 27

<223> n = A,T,C or G

<400> 355

cttggagatg gtagcctgc tcttmnaga tgggttgtag tatttattgt catcccacca 60

<210> 356

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 23, 24

<223> n = A,T,C or G

<400> 356

cttggagatg gtgagcctgc tmnncagaga tgggtttag tatttattgt catcccacca 60

<210> 357

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> 20, 21

<223> n = A,T,C or G

<400> 357

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<210> 358

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic antibody mutation

<400> 358

Phe Gln Ser Ser His Phe Pro Trp Thr

1

5

<210> 359

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> (1) ... (66)

<223> n = A,T,C or G

<400> 359

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aacatc

60

66

<210> 360

<211> 66
<212> DNA
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<223> primer

<221> misc_feature
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<223> n = A,T,C or G

<400> 360
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aacatc 66

<210> 361
<211> 66
<212> DNA
<213> Artificial Sequence

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<221> misc_feature
<222> (1)...(66)
<223> n = A,T,C or G

<400> 361
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aacatc 66

<210> 362
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> (1)...(66)
<223> n = A,T,C or G

<400> 362
cttggtgccc tggccgaacg tccacggaac atgmnnacct tgaaagcagt aataaactcc 60
aacatc 66

<210> 363
<211> 66
<212> DNA
<213> Artificial Sequence

<220>

<223> primer

<221> misc_feature

<222> (1)...(66)

<223> n = A,T,C or G

<400> 363

cttggtgccc tggccgaacg tccacggaac mnntgaacct tgaaagcagt aataaactcc	60
aacatc	66

<210> 364

<211> 66

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<223> n = A,T,C or G

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aacatc	66

<210> 365

<211> 66

<212> DNA

<213> Artificial Sequence

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<221> misc_feature

<222> (1)...(66)

<223> n = A,T,C or G

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aacatc	66

<210> 366

<211> 66

<212> DNA

<213> Artificial Sequence

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<221> misc_feature

<222> (1)...(66)

<223> n = A,T,C or G

<400> 366
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aacatc 66

<210> 367
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<221> misc_feature
<222> (1)...(66)
<223> n = A,T,C or G

<400> 367
cttgggtgccc tggccgaamn nccacggaac atgtgaacct tgaaagcagt aataaactcc 60
aacatc 66

<210> 368
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
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<221> misc_feature
<222> (1)...(75)
<223> n = A,T,C or G

<400> 368
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agcacagtaa tacgt 75

<210> 369
<211> 75
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<213> Artificial Sequence

<220>
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<221> misc_feature
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<223> n = A,T,C or G

<400> 369
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agcacagtaa tacgt 75

<210> 370
<211> 75
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<220>
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<221> misc_feature
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<223> n = A,T,C or G

<400> 370
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agcacagtaa tacgt 75

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<221> misc_feature
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<223> n = A,T,C or G

<400> 371
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agcacagtaa tacgt 75

<210> 372
<211> 75
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<221> misc_feature
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<223> n = A,T,C or G

<400> 372
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agcacagtaa tacgt 75

<210> 373
<211> 75
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<223> n = A,T,C or G

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agcacagtaa tacgt 75

<210> 374
<211> 75
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<221> misc_feature
<222> (1)...(75)
<223> n = A,T,C or G

<400> 374
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agcacagtaa tacgt 75

<210> 375
<211> 75
<212> DNA
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<221> misc_feature
<222> (1)...(75)
<223> n = A,T,C or G

<400> 375
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agcacagtaa tacgt 75

<210> 376
<211> 75
<212> DNA
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<221> misc_feature
<222> (1)...(75)

<223> n = A,T,C or G

<400> 376

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agcacagtaa tacgt

60
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<210> 377

<211> 75

<212> DNA

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<221> misc_feature

<222> (1)...(75)

<223> n = A,T,C or G

<400> 377

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agcacagtaa tacgt

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<223> n = A,T,C or G

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<223> n = A,T,C or G

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<223> n = A,T,C or G

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agcacagtaa tacgt

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75